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PATENT ABSTRACTS OF JAPAN

(11)Publication number:

02-014111

(43) Date of publication of application: 18.01.1990

(51)Int.Cl.

B29C 33/40 B29C 33/42 B29C 55/12 // B32B 27/36 B29K 67:00 B29L 7:00 B29L 9:00

(21)Application number : **63-164240**

(71)Applicant: DAINIPPON PRINTING CO LTD

(22) Date of filing:

01.07.1988

(72)Inventor: AOTA YOSHIRO

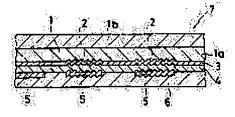
YOSHIMURA ISAO

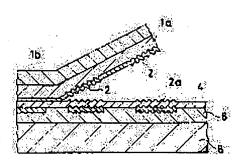
(54) SHAPING FILM

(57) Abstract:

PURPOSE: To manufacture a film of superior heat resistance and emboss easily recessed and projected patterns by means of the emboss method by adding thermoplastic resin with polyester, biaxially orienting and providing given tensile strength.

CONSTITUTION: A biaxially oriented polyester film has tensile strength of 2-5kg/mm2 at the time of 100°C and 100% orientation. The composition of said film is mainly of polyethylene-terephthalate, a different kind saturated polyester component having a structure to be able to form nonlinear copolymer molecules and polyester in the form of a copolymer. When said shaping film is used as a base 1a of a transfer sheet 7, recessed and projected patterns 2 are provided on the base 1a by the emboss





method, and a release layer 3 is provided on the pattern formed surface side, on which a peel ply 4 is laminated. Further, printing patterns 5 are provided in the positions to synchronize with the recessed and projected patterns 2 of the base 1a on said surface, on which a bonding agent layer 6 is laminated to constitute a transfer sheet 7.

DERWENT-ACC-NO: 1990-062367

DERWENT-WEEK: 199604

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TITLE:

Polyester film for moulding and embossing - produced by

copolymerising polyethylene-terephthalate with unsatd.

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PATENT-ASSIGNEE: DAINIPPON PRINTING CO LTD[NIPQ]

PRIORITY-DATA: 1988JP-0164240 (July 1, 1988)

PATENT-FAMILY:

PUB-NO PUB-DATE LANGUAGE PAGES MAIN-IPC

<u>JP 02014111 A</u> January 18, 1990 N/A 006 N/A

JP 95119295 B2 December 20, 1995 N/A 005 C08J 005/18

APPLICATION-DATA:

 PUB-NO
 APPL-DESCRIPTOR
 APPL-NO
 APPL-DATE

 JP 02014111A
 N/A
 1988JP-0164240
 July 1, 1988

 JP 95119295B2
 N/A
 1988JP-0164240
 July 1, 1988

JP 95119295B2 Based on JP 2014111 N/A

INT-CL (IPC): B29C033/40, B29C033/42, B29C041/38, B29C055/12, B29K067/00, B29K067:00, B29L007/00, B29L007:00, B29L009/00,

B32B027/36, C08J005/18, C08L067:00

ABSTRACTED-PUB-NO: JP 02014111A

BASIC-ABSTRACT:

A bi-axially oriented polyester moulding film has a tensile stress at 100% elongation of 2-5 kg/sq.mm by measurement at 100 deg.C. As independently claimed, a biaxially oriented polyester moulding film is made with a polyester. The polyester is produced by copolymerising a polyethylene terephthalate major constituent with an unsatd. polyester constituent of different type from the polyethylene terephthalate. The unsatd. polyester constituent has a molecular stereo-structure which produces non-linear chain polymeric molecules for redn. of crystallinity. As independently claimed, a moulding film comprises the above polyester film and a generally-used polyester film made with a polyethylene terephthalate resin, having a draw ratio of 3-5, laminated together.

The unsatd. polyester constituent may be an acrylic resin, polybutylene terephthalate, poly(1,4-cyclohexylenedimethyleneterephthalate), etc..

USE/ADVANTAGE - For embossing to form convex and concave patterns. The patterns may be easily formed without breaking of the patterns and curling of the films. The film has a high heat resistance, and is suitable for use by in-moulding at high temps..

TITLE-TERMS: POLYESTER FILM MOULD EMBOSS PRODUCE COPOLYMERISE POLYETHYLENE TEREPHTHALATE UNSATURATED POLYESTER

7/15/2007, EAST Version: 2.1.0.14